

REMARKS

This Amendment is filed in response to the Office Action mailed on October 31, 2007. All objections and rejections are respectfully traversed.

Claims 1-23, 33-44, 46-48 are currently pending.

Claim 49 is added.

Request for Interview

The Applicant respectfully requests a telephonic interview with the Examiner after the Examiner has had an opportunity to consider this Amendment, but before the issuance of the next Office Action. The Applicant may be reached at 617-951-3067.

Claim Rejections 35 USC § 112

At paragraph 3 of the Office Action, claims 36-43 and 44-48 were rejected under 35 U.S.C. §112, second paragraph as being incomplete for omitting essential steps.

Applicant has amended the claims and believes claims 36-43 and 44-48 are allowable over §112 rejection.

Claim Rejections 35 USC § 102

At paragraph 4 of the Office Action, claims 24-26 were rejected under 35 U.S.C. §102(e) as being anticipated by Dimitrova et al., U.S. Patent No. 5,870,754 issued on Feb. 9, 1999, hereinafter Dimitrova.

The rejection is moot as Applicant has cancelled claims 24-26.

Claim Rejections 35 USC § 103

At paragraph 5 of the Office Action, claims 1-4, 10-13, 19, 20, 30, 34-38, and 46-48 were rejected under 35 U.S.C. §103 as being unpatentable in view of Brunk et al., US Patent Application Publication No. 2002/0126872, hereinafter Brunk, over Leung, US Patent Application Publication 2002/0141365, hereinafter Leung.

The present invention, as set forth in representative claim 1, comprises in part:

1. Method for comparing a first content with a second content to determine whether the contents are identical, comprising:
 - storing the first content in a cache on a local storage system;
 - requesting a second content from a remote storage system, wherein the second content is stored in a network storage arrangement on the remote storage system;*
 - identifying a protocol encoding the first content and second content;
 - computing a first signature of the first content and a second signature of the second content, wherein the first signature has one or more unique protocol markers that are generated from transformation during protocol encoding and the second signature has one or more unique protocol markers that are generated from transformation during protocol encoding;*
 - comparing the one or more unique protocol markers of the first computed signature with the one or more unique protocol markers the second signature to determine whether the first content is identical to the second content; and
 - storing in the second content in the cache on the local storage system, in response to determining the first content is not identical to the second content.*

By way of background, Brunk discloses a database system that uses content signatures to facilitate database lookup. The content signatures are strictly content related , which means that they derive by methods directly referring to the content of the data signals which have to be identified and compared respectively. “A *content signature is preferably derived as a function of the content item itself. In this case, a signature of a*

content item is computed based on a specified signature algorithm. ... One possible signature algorithm is a hash (e.g., an algorithm that converts a signal into a lower number of bits). The hash algorithm may be applied to a selected portion of a signal (e.g., the first 10 seconds, a video frame or a image block, etc.) to create a signal.” (Paragraph 21). The content signature is further derived by dividing each signal in segments and transform into a frequency domain (e.g. a Fourier transform domain) or time-frequency domain. (Paragraph 22).

Leung discloses a wireless communication system supporting a broadcast service. The broadcast service is transmitted by a content server. The content server independently controls the application layer and the transport layer protocols. Additionally, Leung uses a cache to store SPI-SDP (Security Parameters Index (SPI) Session Description Protocol (SDP)) configurations in memory. The SPI-SDP are configurations used to decode the broadcast stream. When a new SPI-SDP configuration is received, the SPI-SDP is compared with other configurations in memory. If there is a match, then the time stamp of the one matching is updated. If there is not a match, then the SPI-SDP replaces the oldest SPI-SDP entry in the cache.

Applicant respectfully urges that Brunk and Leung taken alone or in combination do not teach or disclose Applicant's claimed novel ***requesting a second content from a remote storage system, wherein the second content is stored in a network storage arrangement on the remote storage system, ..., computing a first signature of the first content and a second signature of the second content, wherein the first signature has one or more unique protocol markers that are generated from transformation during protocol encoding and the second signature has one or more unique protocol markers that are generated from transformation during protocol encoding, ..., storing in the second content in the cache on the local storage system, in response to determining the***

first content is not identical to the second content. In further detail, in Applicant's claimed invention the cache is located on a local storage system, for example a user's computer. The second content is located on a remote storage system, where the remote storage system arranges the data in a network area storage arrangement. The local storage system can determine if the first content is different then an original copy (second content) stored on the remote storage system by the local storage system requesting transmission of the signature of the second content. If the signatures are the same, then it is not necessary to transmit the second copy. If the signatures are different, then the second content is stored in the cache.

In contrast, neither Brunk nor Leung disclose a system using a remote storage system storing the second content in a network area storage arrangement. Brunk discloses a database that uses content signatures that are strictly content related to quickly find a data content. There is no suggestion in Brunk to use a cache because the information is not being transferred between storage systems. Furthermore, the content signature is not derived from protocol encoding but a hash function that requires a separate calculation then transformation of data during protocol encoding. Additionally, there is no suggestion in Leung to use protocol markers to compare signatures because the cache is used to store configuration information for decoding messages based on different broadcast sessions. Leung is comparing configuration information and not comparing data contents, such as MPEG or Video signals, as claimed in Applicant's invention.

Accordingly, Applicant respectfully urges that Brunk and Leung, taken alone or in combination, are legally insufficient to make obvious the presently claimed invention under 35 U.S.C. § 103 because of the absence of the Applicant's claimed novel *request-*

ing a second content from a remote storage system, wherein the second content is stored in a network storage arrangement on the remote storage system, ..., computing a first signature of the first content and a second signature of the second content, wherein the first signature has one or more unique protocol markers that are generated from transformation during protocol encoding and the second signature has one or more unique protocol markers that are generated from transformation during protocol encoding, ..., storing in the second content in the cache on the local storage system, in response to determining the first content is not identical to the second content.

At paragraph 6 of the Office Action, claims 4-9, 14-18, 21-23, 33, and 39-43 were rejected under 35 U.S.C. §103 as being unpatentable over Brunk, in view of Leung, and in further view of Dimitrova et al., US Patent No. 5,870,754, hereinafter Dimitrova.

At paragraph 7 of the Office Action, claims 27-29 were rejected under 35 U.S.C. §103 as being unpatentable over Brunk, in view of Leung, and in further view of Viswanath, US Patent No. 6,674,769, herinafter Viswanath.

Applicant respectfully notes that claims 4-9, 14-18, 21-23, 27-29, 33, and 39-43 are dependent claims that depend from independent claims believed to be in condition for allowance. Accordingly, claims 4-9, 14-18, 21-23, 27-29, 33, and 39-43 are believed to be in condition for allowance.

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims.

Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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